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Description

The invention relates to a kit existing from play construction units with bores and tubular connecting elements, who exhibit at least a portion slotted in longitudinal direction, whose outer diameter is somewhat larger as the bore diameters of the components.

With kits foregoing type it is known to make the connection of the play construction units over tubular connecting elements whereby the integrity of the components becomes achieved by friction of the connecting elements in the bores. Adverse one with this type of the connection is however that are required to the anti-swiveling determination of two components at least two plug connections. Since only a limited number of bores in the components are present, by the blockage by two bores the mounting options for other components significant is limited.

The invention is the basis the object to create a kit is possible with which with a connecting element an anti-swiveling connection.

This by the fact achieved becomes according to invention that the bores exhibit several grooves longitudinal in longitudinal direction, and that the slotted portion of the liaison vehicle exhibits at least at that the slot opposite a location arranged and into the grooves appropriate feather/spring cam.

With the insertion of the liaison vehicle into the bore provided with prolonged-longitudinal grooves the feather/spring cam arranged at the connecting element intervenes in the grooves. Thus a teeth between connecting element and that develops with one another to interconnecting components, which a twist of the components excludes against each other. Additional one occurs a spanning, which secures the connecting element against falling out of the bore between connecting element and bore due to the tubular and embodiment of the liaison vehicle slotted in longitudinal direction with slight excess opposite the bore diameter. To the increase of turning stability it is convenient to attach at the connecting element more than one, preferably three feather/spring cams whereby the middle feather/spring cam the longitudinal slot of the liaison vehicle is opposite arranged. Thus this feather/spring cam the grooves of the bore precise is adaptable, since in this region of the liaison vehicle no elastic deformation occurs due to the clamping sleeve effect. Due to the design according to invention of the bore and the liaison vehicle possible the anti-swiveling connection of two components with a connecting element simplified to the assembly forwards, play models and widened on the other hand the mounting options significant, since for the assembly fewer junctions required become. With use of connecting elements without feather/spring cams further a connection of two components is possible. are against each other more rotatable.

In an other embodiment of the invention the grooves can distribute themselves in uniform angular distances on the scope of the bores. With this design angle allocations of two components are possible. Due to the Durchmesser-Verhältnisse are recommended 8 index stations, which angular

positions of 45 and 90 degree permit.

In other addition of the invention the grooves and feather/spring cam can exhibit a trapezoidal profile. With this design a higher, torque admission of the connection contributing to the stability of the play model is possible.

In the drawing the invention is shown on the basis an embodiment.

The play construction units preferably existing from plastic 1a, 1b exhibit rasterförmig arranged bores 2. To the connection of the components 1a, 1b at least a bore of each component is to be put so one above the other that both the bores 2 and the grooves 3 with one another aligning introduced in the bores. This position of the two components 1a, 1b becomes by insertion of a liaison vehicle 4 and 2 fixed by engage of the feather/spring cams 5 arranged at the connecting element into the grooves 3 of the bores. In the embodiment 8 index stations of the grooves introduced in the bores 2 are 3 provided.

so that the components are in positions of 45 and 90 more connectable degree with one another. By the longitudinal slot 6 in the connecting element 4 and a somewhat larger diameter opposite the core diameter of the bores 2 a spanning achieved, which the connecting elements in the bores secure against falling out, becomes. In order to achieve a higher Drehsteifigkeit between two components, 4 three feather/spring cams are 5 arranged at the connecting element, whereby the middle feather/spring cam faces the longitudinal slot 6 of the liaison vehicle 4. Additional ones the wise grooves 3 and the feather/spring cams 5 a trapezoidal profile up, which contributes to an other improvement of turning stability.

If is desired between two components a rotatable connection, connecting elements 4a are to be used, with which at least the portion 7 engaging into a component does not exhibit feather/spring cams.

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